Islamic Teachers' Perceptions of Improving Critical Thinking Skills in Saudi Arabian Elementary Schools

Mesfer Ahmad Alwadai¹

Correspondence: Mesfer Ahmad Alwadai, King Khalid University, College of Education, Department of Curriculum & Instruction, Guraiger, Abha, 62529, Saudi Arabia. Tel: 966-553-759-479. E-mail: Mesfer-753@hotmail.com

Received: September 2, 2014 Accepted: October 13, 2014 Online Published: November 10, 2014

Abstract

The intent of this explanatory sequential mixed-method study is to examine Islamic teachers' thoughts on improving critical thinking skills in elementary schools in the Southwestern province of Saudi Arabia. This study involves the collection of quantitative data and an explanation of the quantitative results with qualitative data. In the first phase, a survey was administered to Islamic teachers in Saudi elementary schools to assess their opinions on improving students' critical thinking skills and to identify the factors that influence or hinder their implementation of critical thinking instruction. In the second phase, qualitative data was collected using semi-structured interviews with a number of Islamic teachers in order to explore more fully their perceptions toward improving students' critical thinking skills in Saudi elementary schools. In regard to the barriers for improving the critical thinking ability of elementary education students, the participants reported seven major obstacles, which are student ability, teaching methods, classroom structure, Saudi society and the school community, pre-service teachers preparation programs and in-service teacher professional developmental programs, and the Islamic studies curriculum.

The highest ranked obstacle to improving critical thinking for elementary education students was student ability, with an overall mean of 4.31 on a 5-point scale while the Islamic studies curriculum was the lowest ranked obstacle with a total mean of 2.57. This study highlighted there is a need to examine female Islamic teachers' perceptions toward critical thinking in the Southwestern region of Saudi Arabia in order to identify the similarities and differences between the perceptions of male and female teachers.

Keywords: critical thinking ability, critical thinking skill, elementary school, elementary education, Islamic teacher, Saudi Arabian, teacher perception

1. Introduction

Critical thinking is considered the highest intellectual activity in human interaction and enables people to engage in the process of making meaningful decisions (Howie, 2011). Additionally, it is considered a central component of human cognitive abilities. Teaching students' thinking skills in general, and critical thinking specifically, has a long history throughout the plethora of educational philosophy movements from Socrates to modern-day theorists. However, "it was not until the 1950's that critical thinking began being officially taught in the schools as an essential life skill by encompassing these skills within the school curriculum" (Bataineh & Alazzi, 2009, p. 57). "The need for an educated citizenry and quality workforce and citizens' ability to think critically and reason well has been regarded as important and necessary outcomes of education" (Alazzi, 2008, p. 243) and was viewed as the main reason for emphasizing the teaching of critical thinking skills.

During the last decades of the 20th century, the importance of developing children's thinking skills has increased because the increasing complexity and shifting realities of modern life increased the need for generating new knowledge, comprehension, judgment, and evaluation skills in order to deal with job market requirements. Furthermore, critical thinking has recently become an essential qualification demanded by employers seeking solutions to unexpected problems and strategies for successfully competing on the global business market (Alazzi, 2008; Bataineh & Alazzi, 2009). Therefore, improving critical thinking has become a significant school

¹ King Khalid University, College of Education, Department of Curriculum & Instruction, Guraiger, Abha, Saudi Arabia

task in the 21st century. G. F. Smith (2002) contended that the importance of developing learner critical thinking skills has been increased in the past decade because they are essential core life skills.

2. Background and Purpose

There is an ongoing theoretical debate among researchers as to the definition of critical thinking. Influencing this debate are issues related to individual understandings of terms, research needs and interests, researchers' cultural backgrounds, and educational philosophies of the researchers (Alazzi, 2008, Ozkan-Akan, 2003; Sa-U & Abdurrahman, 2008). Therefore, it is necessary to define what this study means by critical thinking because "if educators and psychologists do not know what critical thinking is, how can researchers improve it. Considerations of critical thinking have remained largely in the realm of theoretical speculation, working assumptions, anecdotal observation and pedagogical discussion" (Robinson, 2005, p. 26).

Literature devoted to thinking skills overall and critical thinking exclusively has offered a variety of explanations of critical thinking and its categories. Scholars have defined critical thinking from different perspectives. For example, Facione (as cited in Smith & Stitts, 2013) who has made major contributions to the subject of the philosophy of critical thinking, defined critical thinking as "habitually inquisitive, flexible, orderly in complex matters, and diligent in seeking relevant information" (p. 75). He also found "that the interpretation, analysis, evaluation, inference, explanation and self-regulation were the cognitive skills at the core of critical thinking" (as cited in Smith & Stitts, 2013, p. 75). Halpern's (1996) and Paul and Elder's (2008) definitions were essentially consistent with Facione (as cited in Klein, 2011). They defined critical thinking based on the analytical process, either theoretically or practically. Halpern (as cited in Klein, 2011) defined critical thinking as "purposeful, reasoned, and goal directed—the kind of thinking involved in solving problems, formulating inferences, calculating likelihoods, and making decisions" (p. 1). However, he pointed out the word critical is not meant to imply finding fault, as it might be used in a pejorative way to describe someone who is always making negative comments. It is used instead in the sense of "critical" that involves evaluation or judgment, ideally with the goal of providing useful and accurate feedback that serves to improve the thinking process. (Halpern, 1996, p. 451)

Paul and Elder (2007) described critical thinking as "the art of analyzing and evaluating thinking with a view to improving it" (p. 2). Additionally, Innabi and El Sheikh (2007) identified critical thinking as "the art of taking charge of one's own mind" (p. 47). This addresses a number of essential critical thinking skills such as questioning, supposition, hypothesis, inference, and supporting evidence. However, they emphasized implementing rather than theorizing the critical thinking skills saying, "if someone [acquires] the critical thinking skills, it is not necessary to think critically, but it depends upon the degree of applying these skills in different situations" (Innabi & El Shelkh, 2007, p. 47).

As research indicates, some researchers often define critical thinking as the process of analysis, integration, reconstruction, and evaluation of knowledge and experience using several methods in different learning situations and settings. For example, Maiorana (1992), Kowalczyk et al. (2012), and Stedman and Adams (2012) defined critical thinking as the process of evaluating knowledge to determine its worth, value, and merit for making effective and good decisions. In fact, this process helps individuals make purposeful, meaningful, and unbiased decisions or judgments based upon the use of a variety of critical thinking skills such as interpretation, reflection, and applying the available evidence to a particular discipline (Halpern, 1996; Maiorana, 1992; Kowalczyk et al., 2012; Stedman & Adams, 2012).

Likewise, Alazzi (2008) pointed out that critical thinking researchers often depend on Edward Glaser's definition, which includes "(1) an attitude of being disposed to consider in a thoughtful way the problems and subjects that come within the range of one's experience (2) knowledge of methods of logical inquiry and reasoning (3) some skills in applying those methods" (p. 244). As a result, Alazzi (2008) summarized the resemblances and similarities in the definitions of critical thinking that include all the mental and intellectual processes, approaches, techniques, and personal attitude and perspective involved in interpretation of data, making predictions, reflection, decision-making, and problem solving. In other words, critical thinkers should effectively investigate the problems through scientific steps starting with stating the problem to testing the experiment's outcomes.

The Strategic Plan of the Saudi Ministry of Education (1974) identified the critical thinking skills that include observation, analysis, synthesis, evaluation, evidence collecting, comparison, contrast, innovation, invention, abstraction, and construction. This plan encourages educators to use the different kinds of teaching methods for developing students' abilities to evaluate and organize their thoughts and ideas.

In extending the view of critical thinking, Halpern (2002) and Kenney (2013) emphasized that critical thinking is not an inherent skill, but a skill that must be improved upon in education settings such as schools, colleges, and universities. Similarly, Zeteroglu et al. (2012) acknowledged that critical thinking "is not a skill that comes with

birth and is not a skill peculiar to artists, to develop and progress [thinking skills] fertile environments and conditions should be provided" (Zeteroglu et al., 2012, p. 3137). Also, it "is a habit of mind that people should have all the time to be in charge of their minds. It is more than a list of steps that are applied to specific situations" (Innabi & El Sheikh, 2007, p 47), but it can be developed in certain circumstances and with rich guidance with adequate applications related to the real world. Finally, there are a number of strategies to develop critical thinking such as education, practice, and experience.

Recently, the need for improving students' cognitive abilities within the school environment is explicitly suggested for several reasons. First of all, Ozkan-Akan (2003) stated that the improvement of critical thinking skills in schools has become one of the main goals of the school curriculum and higher education programs in terms of creating citizens who are skilled at attempting to discover new things instead of restating what other people have already accomplished. Moreover, the improvement of thinking skills aims to inform and challenge people's thinking skills in terms of critiquing and verifying knowledge in general and school curriculum in particular. The results of critical thinking studies show that education and critical thinking must be parallel to achieve these goals (Ozkan-Akan, 2003).

Although the importance of improving students' critical thinking through the school environment has become evident, numerous studies examined Saudi students' critical thinking ability in secondary schools (Al-Miziny, 2010; Al Gamdi, 2008), high schools (Al-Essa, 2009; Al-Qahtani, 1995), and at the university level (Alwehaibi, 2012; Allamnakrah, 2013). They reported that Saudi students lack the ability to think critically and any educational reforms must include critical thinking in the school curriculum. These studies attributed this problem to several factors such as school curricula, learning activities, and teacher preparation programs. Similarly, Al-Qahtani (1995) found that the majority of Saudi students lacked critical thinking skills due to the deficiency of critical thinking skills taught in school courses and the failure of instructors to teach critical thinking skills to students.

In response to the deficiency of critical thinking among students, researchers acknowledge that improving learners' critical thinking skills depends primarily on the teachers (e.g., Dunn, 1988; Smith, L., 2002; Sa-U & Abdurrahman, 2008; Tengku, 1994; Thibeault, 2004). Furthermore, Ozkan-Akan (2003) asserted that teachers' perceptions affect the enhancement of students' critical thinking abilities either positively or negatively. As researches indicated, Al-Qahtani (1995) Alwehaibi (2012), Allamnakrah, 2013, and Ozkan-Akan (2003) found teachers' perceptions toward teaching critical thinking to students are influenced by a number of factors such as teaching methods, appreciation of teaching thinking, teacher's educational background, teaching experiences, teaching methods, classroom equipment, the learning materials, and the societal and school communities.

For that, Alwehaibi (2012) called for more studies to examine Saudi teachers' perceptions toward improving thinking skills among students and their influence on students' thinking skills progress across all the educational levels. This study aimed to examine male Islamic teachers' perceptions toward improving students' critical thinking skills and to identify the factors that influence or hinder Islamic teachers' implementation of critical thinking instruction in Saudi Arabian elementary schools. This study attempted to answer the following research questions:

- 1) How did male Islamic elementary school teachers define critical thinking?
- 2) What were the perceptions of male Islamic elementary school teachers on improving critical thinking skills among students in Saudi Arabian elementary schools?
- 3) What were the factors that influence the implementation of critical thinking instruction by male Islamic elementary school teachers in Saudi Arabian elementary schools?

3. Methods

An explanatory sequential mixed-method study was used in order to reveal the participants' views toward the research problem. This strategy "is a popular strategy for mix methods design that often appeals to researchers with strong quantitative leanings. It is characterized by the collection and analysis of quantitative data in a first phase of research followed by the collection and analysis of qualitative data in a second phase that builds on the results of the initial quantitative results" (Creswell, 2009, p. 211). The impetus for using the explanatory sequential mixed-method design was to get a better understanding of the Islamic teacher's perceptions toward improving critical thinking skills among students in Saudi elementary school than would be obtained by either method alone.

3.1 Participants

3.1.1 Questionnaire Participants

The study's population was limited to examining male Islamic teachers' perceptions of thinking skills in the public elementary schools within the Southwestern region of Saudi Arabia due to the Saudi Ministry of Education regulations. A total of 192 male Islamic teachers who taught in elementary schools in the Southwestern region of Saudi Arabia were invited to complete and return the survey. Eventually, 138 completed the mailed survey and submitted their responses. The study's sample was limited to examining male Islamic teachers' because of the Saudi Ministry of Education's regulations. A large number of Islamic teachers (60) worked in the public schools in Abha city (43.47%), while only 10 worked in Al-sawda (7.25%). As well, 10 Islamic teachers worked in Prince Sultan Bin Abdul-Aziz city (7.25%), and 8 teachers taught in Al-qraa area (5.80%). Additionally, 50 teachers worked in Khamis Mushayt city, which represents 36.23% of the study's participants. Essentially, Al-sawda, Prince Sultan Bin Abdul-Aziz city, and Al-qraa are more rural and conservative areas while Abha city and Khamis Mushayt city are more densely populated and affluent.

As far as educational background, the majority of the participants (n=68) hold a bachelor's degree in Islamic studies, which represents 49.27% of the study's participants. Additionally, 40 Islamic teachers hold an associate's degree in Islamic studies, representing 28.99% of the study's sample. The remaining participants of the study's sample (21.74%) hold a bachelor's degree in different disciplines such as language arts, history, geography, physical education, or science. This is due to the lack of specialized teachers and the location of schools. With regard to teaching experience as a variable, 50 of 138 (36.23%) Islamic teachers who completed the questionnaires have 10 or fewer years of teaching experience in elementary schools, and 35 (25.36%) Islamic teachers have taught for 11 to 15 years. Approximately 30 (21.74%) Islamic teachers had between 16 to 20 years of teaching experience, and 14 (10.15%) teachers had teaching experience between 21 to 25 years. A total of 9 Islamic teachers (6.52%) had more than 25 years of teaching experience.

3.1.2 Interview Participants

The qualitative data was gathered through the purposive sampling of 10 Islamic teachers selected to be interviewed by me and my assistants who are three faculty members in King Khalid University, Saudi Arabia. The participants were selected based on four criteria:

- Agreeing to voluntarily participate in the study by completing the consent form.
- Completing the study's questionnaire.
- Having experience teaching Islamic studies at the elementary school level.
- Representing a range of Islamic teachers' responses to the questionnaire items, educational backgrounds and schools' locations.

3.2 Data Collection and Analysis

The quantitative data was collected through a survey. Basically, the survey included two sections. The first section was designed to gather demographic characteristics of the participants such as school location, educational background, and teaching experience. The second section was designed to examine participants view's on the Saudi society and school community's influence on the improvement of critical thinking skills in the Saudi elementary schools. The questionnaire instrument consisted of eight- items, which are adopted from Ozkan-Akan's (2003) study regarding teachers' perceptions on improving thinking skills in general. Participant responses to each statement were in the form of a five-point Likert scale that "assesses attitudes toward a topic by presenting a set of statements about the topic and asking respondents to indicate for each other whether they strongly agree, agree, are undecided, disagree, and strongly disagree" (Ary, 2010, p. 209).

To ensure the validity and reliability of questionnaire, I conducted a pilot study in order to check the language of the survey and decide whether the study is feasible and whether it is worthwhile to continue. The respondents offered some helpful suggestions and feedback in order to determine if any modification of the survey's statements were necessary to ensure they would be understandable. At the same time, the researcher gave questionnaires to three Saudi professors at King Khalid University, King Saud University, and Al Jouf University to assess the survey's statements in terms of their wording and relevance of the items to the study and to review the content for accuracy in the translation of the statements. Furthermore, the researcher calculated the reliability analysis of the questionnaire by SPSS 19.0 so that the Cronbach's Alpha of 0.856 presented the degree of internal consistency of the questionnaire's items. Ultimately, the questionnaire was determined to be valid, reliable, and ready for distribution to the study's sample.

Face-to-face interviews were aimed to extract participants' opinions about the study's topic to determine their understanding of the survey's statements. Therefore, its questions were developed based on the survey's results and in light of the study's questions, which assisted me in obtaining a holistic picture of their perceptions and thoughts. Ten male Islamic teachers, who responded to the questionnaire, were selected for interviewing in December 2013. The primary language used in the interviews was Arabic in an effort to make interviewees comfortable and to help them better understand the interview questions. The average duration of each interview was 20 minutes. These interviews were videotaped for accurate recording of data. Regarding credibility and reliability of the interview questions, three academics proficient in both Arabic and English reviewed the translations to ensure the interviewees understanding. They provided me with meaningful suggestions. The researcher trained his assistants to be qualified in interviewing the study's subjects and in recording the semi-structured interview data independently and separately, to be able to discuss interview themes, and to resolve any recording discrepancies. After recording and transcribing the interview data, the researcher sent the interview themes to the interviewees to check the originality and authenticity of their interviews and to get their final permissions for analyzing the qualitative data. These procedures helped me to produce 100% reliability, which is a high degree of agreement on the recording data among the interviewers.

4. Results

The results obtained from the analysis of the questionnaire identify the Islamic teachers' perceptions toward the meaning of critical thinking, the obstacles to improving critical thinking skills in Saudi elementary schools by answering the research questions. In order to recognize Islamic teachers' perceptions toward the meaning of critical thinking, they were questioned to determine their personal degree of agreement or disagreement with seven particular statements about the meaning of critical thinking and the benefits of improving critical thinking skills for the students, members of community, and society in general.

Table 1. The extent to which Islamic teachers agree or disagree with the critical thinking definitions of critical thinking (CT)

Statement	Strongly agree (5)	Agree (4)	Undecided (3)	Disagree (2)	Strongly Disagree (1)	Mean M	Standard deviation SD
CT enables students' to use their higher order thinking (i.e. analysis, synthesis, and evaluation).	43.8	29.9	0	10.5	15.8	4.34	0.585
CT is a method of thinking that would help students to enjoy the learning process.	47.1	26.5	0	22.1	4.3	4.31	0.551

As shown in Table 1, the majority of respondents (74%) agreed with the given definition of critical thinking, which includes observation, analysis, synthesis, evaluation, collection of evidence, comparison, contrast, innovation, invention, abstraction, and construction. One of the interviewee made the following comment:

A critical thinking as a mental term it can be defined differently. Someone can define it as a mental process; someone else can say it is a way of storing information. Personally, I define critical thinking as finding solutions or discovering hidden things. It also is known as gathering supporting evidences to criticize an issue.

On the other hand, over 25% of the respondents did not agree with the given critical thinking definition as a method of thinking that would help students to enjoy the learning process. However, during the interview, I found the majority of interviewees defined critical thinking differently, generally offering vague and ambiguous thoughts on the meaning of critical thinking and its skills. As example, one of the interviewee perceived critical thinking as

Critical thinking is a way of increasing trust among teachers and students that allows students to become equal in the sense of knowledge. It is the fastest way to memorize information in a short amount time.

In regard to the obstacle of improvement of critical thinking, Islamic teachers considered the Saudi society and school community the main obstacle to teaching critical thinking in the Saudi elementary schools. As displayed in Table2, approximately 96% of the respondents reported that students view their Islamic teachers as authority figures, a cultural perception that means they cannot be subject to arguing or questioning. The comments provided by the interviewees revealed two different views on this topic. The first view was shared by the majority of interviewees and contends that Saudi society does not appreciate or support the process of developing citizens' critical thinking skills for two reasons: 1) teachers and parents must teach students to respect the cultural ideas and accept them without question; and 2) a common misconception among elders and politicians is that improving critical thinking among young learners may affect the security and conformity of Saudi society. In other words, parents and leaders of society interpret questioning and back-and forth dialogue with people in authority as disrespectful and inappropriate behavior.

Table 2. The extent to which Islamic teachers agree or disagree with statements regarding the influence society has on improving critical thinking skills (CTS)

Statement	Strongly agree (5)	Agree (4)	Undecided (3)	Disagree (2)	Strongly Disagree (1)	Mean M	Standard deviation SD
Improving CTS thinking skills leads to improving Saudi society.	37.0	58.0	0	4.3	0.7	4.26	.737
Saudi society does not value CT.	34.1	52.9	0	12.3	0.7	4.07	.948
Improving CT affect the Saudi of society security.	34.1	52.9	0	12.3	0.7	4.07	.948
It is disrespectful to question people in authority.	28.3	49.3	2.2	20.3	0	3.85	1.050

As research found, over 85% of respondents strongly agreed that Saudi society does not value improving critical thinking, For example, one of interviewee reported that the Saudi society has a negative effect on improving students' critical thinking abilities. Also, Saudi students grow up in an uncritical society because parents and teachers raise and teach children that others' ideas and opinions must be respected. Additionally, elders and people in authority usually attempt to limit children's, and even adults', freedom to discuss what they want to address. Therefore, parents and teachers sometimes train students to defer to powerful people because of the traditional belief that the community must be ruled and governed by the elites who have the leadership skills for making society flourish.

However, only 12% of the Islamic teachers thought that Saudi society appreciates and encouraged the improvement of young learners' critical thinking skills by elementary school teachers. This opposite view claimed that Saudi society appreciated and encouraged elementary school faculty to improve young learners' critical thinking skills. The reasoning is that the current elementary school students are the future leaders responsible for the employment of critical thinking skills by other citizens either in school or at work. They emphasized the consequence of the teacher's role in encouraging students to express gently and politely their opinions and beliefs and to question people in authority in order to produce productive and wise leadership. For instance, another interviewer stated:

In Saudi Arabia, people often practice critical thinking beyond the educational context. Saudi citizens have freedom to raise their voice about educational, political, and social problems.

Essentially, this study indicated that student ability is the second obstacle to improving critical thinking skills in Saudi elementary schools. As shown in Table 3, over 79% of the respondents thought elementary students lack the necessary knowledge for improving and practicing critical thinking in the classroom. It was the opinion of 96% that elementary students experience difficulty and are impatient and irritated when practicing critical thinking activities. 79% of respondents said the students lack the interest to engage in the critical thinking activities and prefer simpler factual activities and assignments. It was made evident during the participant

interviews that these teachers hoped their students would enthusiastically contribute and participate in daily critical thinking skills activities, either in or out of the classroom.

Table 3.The extent to which Islamic teachers agree or disagree with statements on that student ability as constraint to the improvement of critical thinking skills (CTS)

Statement	Strongly agree (5)	Agree (4)	Undecided (3)	Disagree (2)	Strongly Disagree (1)	Mean M	Standard deviation SD
Students lack needed background knowledge for practicing CT.	68.1	11.6	2.9	8.7	8.7	4.21	1.344
Students are impatient with the difficulty of practicing CT activities.	52.9	44.9	0	2.2	0	4.48	.618
Students lack interest in CT activities.	68.1	11.6	2.9	8.7	8.7	4.21	1.344
Students prefer activities and assignments with simple factual questions and answers.	68.1	11.6	2.9	8.7	8.7	4.21	1.344

However, they found their students to be largely discouraged, and passive, and lacking motivation to challenge themselves in complex activities. Significantly, interviewees stated that since students are loathing to respond to or to participate in critical thinking activities, the teachers tend not to incorporate them. They also mentioned that students become anxious, especially when asked clarification questions that require the use of fundamental critical thinking skills, such as analyzing and synthesizing information. Students also become comfortable with basic questions that only required memorized responses. One of interviewee made the following statement:

There are a number of problems related to teaching critical thinking to Saudi students, but the major problem is linked to the students. Saudi students, through their daily allotment of time, have no time to deal with learning materials, let alone practice critical thinking because of personal interest activities, such as soccer. Also, they were not interested in learning complex materials because complicated activities would affect their future careers. Most Saudi students view passing the national and academic achievement test with a high grade point average as the highest priority because it makes them eligible for admittance to high ranked universities and colleges. The main concern for students is to get a good grade versus actually learning the content.

In contrast to these findings was the fact that elementary students lack the knowledge for improving their critical thinking skills. Nearly 17% of the respondents argued that Saudi students had the ability to apply critical thinking skills, but students cannot developed their abilities on their own. Students' abilities should be primarily fostered and promoted in their classroom by experienced and knowledgeable teachers. Moreover, 17% contended that Saudi students tend to learn complex and challenging activities, but the teacher was responsible for providing students with ample learning activities and motivating them to actively participate. Teachers played a primary role in the overall learning process in terms of implementing critical thinking instructions and activities in the classroom.

The third obstacle to teach critical thinking in the Saudi elementary school is teaching methods. As presented in Table 4, almost 98% of the teachers responded to the statement about teaching methods for delivery of Islamic concepts saying that Islamic teachers usually lecture about such concepts to elementary schools students because they feel a need to cover content within the timetable of the course and following the scope and sequence of the content.

Nearly 72%, of the Islamic teachers affirmed that they do not provide their students sufficient time for improving critical thinking skills in class or implement instructional techniques for fostering students thinking skills.

Interestingly, almost 98% reported they do not welcome questions that have no obvious answer because such questions make them nervous and uncomfortable.

Table 4. The extent to which Islamic Teachers agree or disagree with statements on teaching methods being a barrier to the improvement of critical thinking skills (CTS)

Statement	Strongly agree (5)	Agree (4)	Undecided (3)	Disagree (2)	Strongly Disagree (1)	Mean M	Standard deviation SD
Islamic teachers usually lecture the knowledge to the students.	69.6	28.3	2.2	0	0	4.67	.514
Islamic teachers feel a need to cover content.	30.4	42.8	14.5	12.3	0	3.91	.970
Islamic teachers do not provide adequate CT opportunities within lesson plans.	69.6	28.3	2.2	0	0	4.67	.514
Islamic teachers are uncomfortable with their students' questions that they may not be able to answer.	69.6	28.3	2.2	0	0	4.67	.514

Classroom structure was impede teaching critical thinking for elementary school students. As Table 5 showed, over 74% of respondents agreed that classrooms are not conducive for facilitating the teaching of critical thinking skills for elementary school students.

Table 5.The extent to which Islamic teachers agree or disagree with statements on classroom structure constrains being a constraint to improving critical thinking skills (CTS)

Statement	Strongly agree (5)	Agree (4)	Undecided (3)	Disagree (2)	Strongly Disagree (1)	Mean M	Standard deviation SD
Classrooms do not help Islamic teachers facilitate CTS.	42.0	32.6	0	25.4	0	4.16	.806
Islamic teachers do not have enough time to get prepared for developing activities for CT.	39.1	19.6	8.0	16.7	16.7	3.47	1.54
Islamic teachers do not have enough resources to teach CT.	39.9	39.1	1.4	8.0	11.6	3.87	1.33
Islamic teachers are not prepared to assess CT.	26.1	33.3	10.9	15.2	14.5	3.41	1.39

However, 25% claimed that the schools in the urban Abha educational district are well-prepared for teaching critical thinking in terms of including all the necessary learning materials, laboratories, Internet networks, and technological equipment. At the same time, they contended that Islamic teachers who teach in the elementary schools located in the rural area of Abha's educational district encounter difficulties in teaching critical thinking due to the lack of the essential learning materials, libraries, and Internet network. Also, there was large number of schools not originally designed to serve as schools, causing students and teachers to adapt to inadequate classroom sizes, lighting, and safety measures. One of interviewee offered the following comments:

There were things we, teachers and students, lack, such as facilities. For example, schools are not as well-prepared as they are supposed to be. There must be smart boards and round tables for group discussions. In the urban area of the Abha educational district, elementary schools are generally prepared with a number of

learning facilities and techniques, but these schools do not have the necessary tools for teaching thinking skills in general and critical thinking in particular. A teacher buys what is affordable from his own pocket because the Ministry of Education does not provide many of the necessary items. When a teacher gives a student a problem to solve using thinking skills, students have to have the required tools whether they study math, Islamic education, social studies, or geography.

5. Discussion

The findings of this study were consistent with the findings of several studies (Allamnakrah, 2013; Alwehaibi, 2012) in terms of teachers failing to teach critical thinking skills to learners due to their own lack of knowledge of critical thinking and how to implement it in the learning site. Researchers claim that a lack of academic and applied knowledge of critical thinking and practice impedes students' critical thinking relating to their developmentally appropriate level of challenge (Kowalczyk et al., 2012; Lauer, 2005; Paul, 2007; Stedman & Adams, 2012). However, teachers were sometimes eager to teach critical thinking skills to learners, but had insufficient knowledge of critical thinking and how to implement the strategies of teaching it (Whittington & Newcomb as cited in Stedman & Adams, 2012).

In regard to the student ability as obstacle to improving critical thinking for elementary education students, this study supported the view of Alwehaibi's (2012) study that showed engaging students in critical thinking activities could lead to the improvement and promotion of critical thinking skills. However, Allamnakrah (2013) claimed that some teachers believed students have no interest in learning critical thinking, especially if they assume it will not be required when taking the national test. He pointed out that teachers are sometimes willing for their students to engage and participate actively in critical thinking courses, but they found students to be inactive learners during critical thinking practice. Therefore, students preferred to arrive at answers easily and to enjoy their leisure time doing fun activities. Dealing with these issues, of course, was a difficult and complex job for teachers, but they should do their best to improve students' skills and share their personal experiences with others.

Furthermore, this study's findings coincided with those of Al-Essa (2009), who discovered that critical thinking generally was absent across all educational levels. He mentioned that Saudi researchers have advocated integrating critical thinking into the school curriculum and classroom activities. It was also consistent with the studies of Choy and Cheah (2009), and Stedman and Adams (2012) that indicated students can think critically using their own cognitive skills, but the improvement of critical thinking skills requires time, activities, and teachers-supported efforts. Furthermore, this study's findings correspond with the major findings in Allamnakrah's (2013) study that showed it is simple to blame students' mental ability rather than taking into account and addressing the causes and solutions of this problem. Also, Aliakbari and Sadeghdaghighi (2012) were supported by this study's finding that students' ability as an obstacle can attribute to the lack of opportunity to practice critical thinking in the classroom and to the overloaded of learning materials. Additionally, students should be able to express their opinions without hesitation and fear. If not, they tend to imitate other's ideas or to follow other's beliefs without question.

In terms of teaching methods and classroom structure as obstacle to foster elementary education students' critical thinking abilities, this study supported the Al-Qahtani (1995), Brookfield (1987), Fisher (2007), Kowalczyk et al., (2012), and Maiorana (1992) studies that found improvement of critical thinking could be hindered by a teacher's confusion in distinguishing between teaching organization and teaching approaches. A teaching approach focuses on the methods of conveying knowledge to the students and the framework of the subject matter. Teaching organization focuses on how the lesson is arranged in order to help students easily engage. Moreover, it concurred with Ozkan-Akan's (2003) study that found educators have a difficult job of improving students' critical thinking skills effectively in crowded classrooms. Moreover, this study's finding was consistent with the studies of Al-Qahtani (1995) and Alwehaibi (2012) that found Saudi teachers are often disappointed and discouraged to teach critical thinking in classrooms that are not designed to function as schools.

6. Conclusion

It is crucial to present the major and essential findings of this study, and to provide suggestions for overcoming the barriers to improving critical thinking abilities for young learners. This study might help curriculum designers, policy makers in the Ministry of Education, teaching supervisors, educators in general, and Islamic teachers in particular by raising awareness of the necessity of teaching critical thinking in elementary schools and providing suggestion into the problem of understanding Islamic teachers' perceptions of the obstacles to improvement of critical thinking by young learners.

One of the major findings is that Islamic teachers lack the basic knowledge of critical thinking in terms of their inability to define critical thinking to students regardless of their educational levels. The teachers do not value or welcome practicing critical thinking in general, but in school in particular. In order to tackle this problem, it is the responsibility of university and teaching faculties and school staffs to create both long and short-term plans that include a number of enrichment programs and professional training programs for the school neighborhoods. These development programs would eventually provide citizens with adequate opportunity to express their opinions about their social, financial, and political issues, and the mentality of would change gradually and positively toward critical thinking as a fundamental educational goal over the next decades.

Another finding is that Islamic teachers usually teach by lecturing to the students, which is an impediment to improving their students' critical thinking skills. Educators should employ different methods of teaching thinking skills such as in a separate class, in specific subjects, and through infusing throughout the curriculum such as small group discussion, and heuristic methods. Teaching thinking through the separate class method focuses on improving the thinking skills-cognitive process through specific programs in a separate lesson. Developing thinking skills through specific subjects focuses on improving the students' thinking skills through a series of lessons to raise the level of thinking within each subject and to accelerate their development to the next stage of thinking (Dewey & Bento, 2009). The infusion method can be used across the curriculum, and is defined as metac ognition. David (as cited in Scott, 2008) states the infusion method involves critical thinking, decision-making, synthesis, and analysis of content being studied. This method plays a central role in activating student-thinking skills in an explicit manner using different types of thinking skills. It is recommended that Islamic teachers persist in asking students to think critically.

The last major finding is that Islamic teachers view student ability as a constraint to improving critical thinking, specifically student lack of interest in practicing critical thinking. Islamic teachers and curriculum developers take student resistance of practicing difficult activities and active learning into their account. In addition, they should understand the different learning styles, age level of the students, psychological characteristics of students, student's learning aptitude, appropriate teaching method, and theoretical orientation of critical thinking in the elementary schools. Moreover, they should motivate and encourage students to challenge themselves to reach a sound conclusion. For future research, there is a need to examine female Islamic teachers' perceptions toward critical thinking in the Southwestern region of Saudi Arabia in order to identify the similarities and differences between male and female teacher perceptions. It is vital to investigate perceptions of teachers in other disciplines, such as language arts, social science, English, and math in order to offer policy makers in the Ministry of education a holistic picture of the Saudi educational system.

Acknowledgments

I wish to acknowledge the help and guidance of Dr. John McIntyre who is a professor in the Department of Curriculum and Instruction at Southern Illinois University, Carbondale, Illinois, USA. His support, encouragement, and patience throughout conducting my research. Heartfelt thanks also are given to Dr. Christie McIntyre who is an associate professor in the Department of Curriculum and Instruction at Southern Illinois University, Carbondale, Illinois, USA.

References

- Alazzi, K. F. (2008). Teachers' perceptions of critical thinking: A study of Jordanian secondary school social studies teachers. *Social Studies*, *99*(6), 243-248. http://dx.doi.org/10.3200/TSSS.99.6.243-248
- Al- Essa, A. (2009). Education reform in Saudi Arabia between absence of political vision. *Apprehension of the Religious Culture and Disability of Education Management* (1st ed.). Beirut County, Dar Al Saqi.
- Al Gamdi, S. (2008). Assessment of learning actives of linguist competencies at secondary school 1st year, based on appropriate students' critical thinking skills (Unpublished Master). Umm Al.Qura University, Makkah: Saudi Arabia.
- Aliakbari, M., & Sadeghdaghighi, A. (2013). Teachers' perception of the barriers to critical thinking. *Procedia-Social and Behavioral Sciences*, 70, 1-5. http://dx.doi.org/10.1016/j.sbspro.2013.01.031
- Allamnakhrah, A. (2013). Learning critical thinking in Saudi Arabia: Student perceptions of secondary pre-service teacher education programs. *Journal of Education and Learning*, 2(1), 197-210 http://dx.doi.org/10.5539/jel.v2n1p197
- Al-Miziny, H. (2010). Abdicating of education in Saudi Arabia (1st ed.). Beirut County: Arab Diffusion Company.

- Al-Qahtani, S. (1995). Teaching thinking skills in the social studies curriculum of Saudi Arabia secondary schools. *International Journal of Educational development*, 15(2), 155-163. http://dx.doi.org/10.1016/0738-0593(94)E0014-F
- Alwehaibi, H. (2012). Novel program to promote critical thinking among higher education students: Empirical study from Saudi Arabia. *Asian Social Science*, 8(11), 193-204.
- Ary, D., Jacobs, L., & Sorensen, C. (2006). *Introduction to research in education*. Donald Belmont, CA: Thomson/Wadsworth
- Bataineh, O., & Alazzi, K. F. (2009). Perceptions of Jordanian secondary schools teachers towards critical thinking. *International Education*, 38(2), 56-72.
- Bensley, D., Crowe, D. S., Bernhardt, P., Buckner, C., & Allman, A. L. (2010). Teaching and assessing critical thinking skills for argument analysis in psychology. *Teaching of Psychology*, *37*(2), 91-96. http://dx.doi.org/10.1080/00986281003626656
- Brookfield, S. (1987). Developing critical thinkers. San Francisco, CA: Jossey-Bass Publishers.
- Burke, L., Williams, J., & Skinner, D. (2007). Teachers' perceptions of thinking skills in the primary curriculum. *Research in Education*, 77, 1-13. http://dx.doi.org/10.7227/RIE.77.1
- Choy, S. C., & Cheah, P. K. (2009). Teacher perceptions of critical thinking among students and its influence on higher education. *International Journal of teaching and learning in Higher Education*, 20(2), 198-206.
- Convention on the Rights of the Child. (1989). *Population & Development Review*, 15(4), 779-783. http://dx.doi.org/10.2307/1972615
- Creswell, J. (2009). *Research design qualitative, quantitative, and mix methods approaches* (3rd ed.). California, USA: SAGE Publication, Inc.
- Dunn, T. (1998). *Mathematics teaching and learning in an alternative high school program: A qualitative study of preservice teachers and learners* (Doctoral dissertation, Washington State University). Retrieved from ProQuest Dissertation and Theses.
- Ennis, R. H. (1987). A taxonomy of critical thinking dispositions and abilities. In J. B. Barn, & R. J. Sternberg (Eds.), *Teaching thinking skills: Theory and Practice* (pp. 9-26). New York: W.H. Freeman and Company.
- Fisher, R. (2007). Dialogic teaching: Developing thinking and metac ognition through philosophical discussion. *Early Child Development and Care*, 177(6-7), 615-631. http://dx.doi.org/10.1080/03004430701378985
- Fisher R. (in press). Thinking Skills. In J. Arthur, T. Grainger, & D. Wray (Eds.), *Learning to teach in primary school*. Routledge Falmer.
- Halpern, D. (1996). Thought and knowledge: An introduction to critical thinking. Mahwah, NJ: L.Erbaum associates.
- Halpern, D. (2002). *Thought and knowledge: An introduction to critical thinking* (4th ed.). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Howie, D. R. (2011). Teaching students thinking skills and strategies [electronic resource]: A framework for cognitive education in inclusive settings/Dorothy Howie. London: Jessica Kingsley.
- Innabi, H., & El Sheikh, O. (2007). The change in mathematics teachers' perceptions of critical thinking after 15 Years of Educational Reform in Jordan. *Educational Studies In Mathematics*, 64(1), 45-68. http://dx.doi.org/10.1007/s10649-005-9017-x
- Kelly, A. V. (2009). *The curriculum theory and practice* (6th ed.). Wiltshire, England: Chippenham, Great Britain by CPI Antony Rowe.
- Kenney, J. (2013). Fostering critical thinking skills: Strategies for use with intermediate gifted readers. *Illinois Reading Council Journal*, 41(2), 28-40.
- Klein, G. (2011). Critical thoughts about critical thinking. *Theoretical Issues In Ergonomics Science*, 12(3), 210-224. http://dx.doi.org/10.1080/1464536X.2011.564485
- Kowalczyk, N., Hackworth, R., & Case-smith, J. (2012). Perception of the use of critical thinking methods. *Radiologic technology*, 83(3), 226-237.
- Lauer, T. (2005). Teaching Critical thinking skills using course content material. *Journal of College Science Teaching*, 34(6), 34-44.

- Maiorana, V. (1992). *Critical thinking across the curriculum: Building the analytical classroom*. Bloomington, IN: Eric clearinghouse.
- Ministry of Education-Saudi Arabia-Strategic Plan. (1974). *The secondary stage curriculum*. Saudi Arabia: The National Press, Riyadh.
- Moore, K, D. (2009). *Effective instructional strategies from theory to practice*. Los Angeles, United State of America: SAGE publications.
- Ozkan-Akan, S. (2003). *Teachers' perceptions of constraints on improving students thinking in high schools* (Unpublished master thesis). Middle East Technical University, Turkey. Retrieved from http://etd.lib.metu.edu.tr/upload/683631/index.pdf
- Paul, R., & Elder, L. (2008). Critical thinking: The art of Socratic questioning. *Journal of Developmental Education*, 31(1), 36-37.
- Robinson, T. Y. (2005). A study of the effectiveness of environmental education curricula in promoting middle school students' critical thinking skills.
- Sa-U, S., & Abdurrahman, N. (2008). Factors influencing teachers' perceptions on teaching thinking: A case study in Kuala Lumpur, Malaysia. *The Journal of Behavioral Science*, 3(1), 146-155.
- Scott, S. (2008). Perception of students' learning critical thinking through debate in a technology classroom: A case study. *The Journal of technology studies*, *34*(1), 39-44.
- Smith, G. F. (2002). Thinking skills: The question of generality. *Journal of curriculum studies*, *34*, 659-678. http://dx.doi.org/10.1080/00220270110119905
- Simpson, E., & Courtney, M. (2008). Implementation and evaluation of critical thinking strategies to enhance critical thinking skills in Middle Eastern nurses. *International Journal of Nursing Practice*, *14*, 449-454. http://dx.doi.org/10.1111/j.1440-172X.2008.00719.x
- Smith, J., & Stitts, D. (2013). Using Action Learning and Critical Thinking Tools to Make Changes in Higher Education. *Contemporary Issues In Education Research*, 6(1), 73-84.
- Smith, L. (2002). Reconceptualizing context from a situated perspective: Teacher beliefs and the activity of teaching within the context of science reform (Doctoral dissertation, The University of Utah). Retrieved from ProQuest Dissertation and Theses.
- Snyder, L. G., & Snyder, M. J. (2008). Teaching critical thinking and problem solving skills. *Delta Pi Epsilon Journal*, 50(2), 90-99.
- Stedman, N. P., & Adams, B. L. (2012). Identifying faculty's knowledge of critical thinking concepts and perceptions of critical thinking instruction in higher education. *NACTA Journal*, 56(2), 9-14.
- Tengku, S. (1994). *The implementation of a national computer education project in secondary school in Malaysia: Teacher's perceptions* (Doctoral dissertation, University of Georgia). Retrieved from ProQuest Dissertation and Theses.
- Thibeault, J. (2004). The relationship between student teachers and cooperating teachers as a foundation for the development of reflective thinking: An exploratory study based on student teacher's perceptions (Doctoral dissertation, McGill University). Retrieved from ProQuest Dissertation and Theses.
- UN Convention on the Rights of Persons with Disabilities and Council of Europe Disability Action Plan. (2006). Retrieved from http://www.nda.ie/cntmgmtnew.new.nsf/0/9515327CFCF84669802574C70032B07F /\$File/NDAUN-EUSeminar.pdf
- Zeteroglu, E., Dogan, Y., & Derman, M. (2012). Determining the opinions of preschool and primary school teacher candidates on creativity and metaphorical perception. *Educational Sciences: Theory & Practice*, 12, 3135-3145.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (http://creativecommons.org/licenses/by/3.0/).